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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,151	10/31/2003	Rudolph T. Beaupre	5700-13	1007

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EXAMINER
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REIFSNYDER, DAVID A

ART UNIT	PAPER NUMBER
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1723

DATE MAILED: 11/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/698,151

Applicant(s)

BEAUPRE, RUDOLPH T.

Examiner

David A. Reifsnyder

Art Unit

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***35 USC 112 6<sup>th</sup> paragraph Analysis***

The structural equivalent of the “means for continuously draining water with settled particulates from the bottom portion of the boiler structure”, is any structure that can drain water, because the specification broadly teaches a drain line for continuously draining water with settled particulates from the bottom of a boiler.

The structural equivalent of the “means for continuously mechanically separating the drained water with settled particulates from the bottom portion of the boiler structure”, is any structure that can mechanically separate drained water with settled particulates from the bottom of a boiler, because the specification broadly teaches a mechanical separator for draining water with settled particulates from the bottom of a boiler, and the only specific example of a mechanical separator is a centrifuge. Furthermore, the specification fails to teach a preferred centrifuge; however, the drawings implies that the preferred centrifuge is a hydrocyclone.

The structural equivalent of the “means for continuously returning the cleansed water to the boiler structure”, is any structure that can return water to a boiler, because the specification broadly teaches a line for continuously returning water to a boiler.

The structural equivalent of the “means for periodically purging the separated particulates from the mechanical separator”, any structure that can purge particulates from a mechanical separator, because the specification broadly teaches a means for periodically purging the separated particulates from a mechanical separator.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1; the recitation of “a supply conduit through which supply water can be added to the system” is vague and indefinite as to what portion of the system the supply water can be added to. Furthermore, the two recitations of “the boiler structure” both lack antecedent basis and are vague and indefinite as to what structure defines a “boiler structure”. In addition, the recitation of “the bottom portion” lacks antecedent basis. Lastly, the recitation of “and means for mechanically separating” is confusing, because when using the word “and” before “means” the “means” should be the last claimed “means”; however, the “means for mechanically separating” is not the last claimed “means”.

Regarding claim 2; the recitation of “the separated particles” lacks antecedent basis. (i.e. the “separated particles” should be the ---separated particulates---).

Regarding claims 3 and 10; the recitation in both of those claims of “the boiler structure” lack antecedent basis and is vague and indefinite as to what structure defines a “boiler structure”.

Regarding claims 4 and 6; the recitation in both of those claims of “said boiler structure” lack antecedent basis and is vague and indefinite as to what structure defines

a "boiler structure".

Regarding claim 5; the recitation of "the bottom portion" lacks antecedent basis.

Regarding claim 9; the recitation of "said device for exposing the supply water passing through the supply conduit to oscillating electromagnetic flux is one such as disclosed in claimed in U.S. Patent No. 6,063,267", is vague and indefinite as to whether the device for exposing the supply water passing through the supply conduit to oscillating electromagnetic flux must be one such as disclosed in U.S. Patent No. 6,063,267. Furthermore, stating that the device is the same as in U.S. Patent No. 6,063,267, makes is unclear as to what the applicant is claiming; therefore, the features of the device must be claimed. Lastly, the recitation of "disclosed in claimed in U.S. Patent No. 6,063,267" does not make sense.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 and 8-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Brigante who discloses a water boiler system comprising: a boiler (10) for containing a body of water to be heated; a heating means for heating the body of water in the boiler; an outlet conduit in which hot water or steam evolving from the body of water is dischargeable from the boiler (10); a supply conduit (157, 166, 24) which adds supply

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water to the boiler (10), a device (160) associated with the supply conduit (157,166 ,24) for exposing the supply water passing through the supply conduit (157, 166, 24) to oscillating electromagnetic flux to induce the formation of particulates in the supply water, the boiler (10) having a bottom to which particulates in the body of water can settle by gravity; a means (78) for continuously draining water with the settled particulates from the bottom of the boiler (10); a means (90) for continuously mechanically separating the drained water with settled particulates into separated particulates and cleansed water; a means (94) for periodically purging the separated particulates from the means (90) for continuously mechanically separating, the means (94) for periodically purging the separated particulates from the means (90) for continuously mechanically separating including a timer controlled valve; and a means for continuously returning the cleansed water to the boiler (10). (Figs 2, 3 and 5)

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

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2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brigante in view of Cannell.

Brigante discloses the water boiler system as discussed above, but fails to disclose that his boiler includes a firetube boiler as claimed in claims 4 and 5, or a watertube boiler as claimed in claim 6. Cannell teaches on column 1, lines 25-32 that firetube boilers and watertube boilers are conventional boilers. It is considered that it would have been obvious to one having ordinary skill in the art at the time of the invention that Brigante's boiler be either a firetube boiler or a watertube boiler since as taught by Cannell, firetube and watertube boilers are conventional boilers.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brigante in view of Cannell as applied to claim 6 above, and further in view of Agrest.


Brigante in view of Cannell suggests a water boiler system comprising a watertube boiler, but fail to disclose that the watertube boiler has an upper drum and lower drum. Agrest discloses, on column 4, lines 11-16, a watertube boiler having an upper drum and lower drum. It is considered that it would have been obvious to one having ordinary skill in the art at the time of the invention that the watertube boiler as suggested by Brigante in view of Cannell include an upper drum and lower drum as taught by Agrest, since a watertube boiler having an upper drum and lower drum is well known in the art.

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David A. Reifsnyder whose telephone number is (571) 272-1145. The examiner can normally be reached on M-F 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda M. Walker can be reached on (571) 272-1151. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
David A Reifsnyder  
Primary Examiner  
Art Unit 1723

DAR